AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0002] with the following amended paragraph:

The present invention provides a method for monitoring oxide quality, and more particularly, relates to a method for quickly monitoring the stress-induced degradation of an oxide layer in a memory cell or in a metal-oxide-semiconductor (MOS) with wafer acceptance testing (WAT) equipment.

Please replace paragraph [0032] with the following amended paragraph:

The principle for monitoring the oxide quality according to the present invention is to utilize the Fowler-Nordeheim tunneling mechanism equation. When the voltage difference across the oxide layer for the SiO_2-Si interface is greater than approximately 3.2V, the gate current (I_g) is due to Fowler-Nordeheim tunneling. As shown in Fig.4, an n-channel flash ROM cell 100 formed on a P-type substrate 101 is taken as an example.

Please replace paragraph [0033] with the following amended paragraph:

First, a floating gate 102 is electrically connected (step 170) to a control gate 104 of the flash ROM cell 100. The method to electrically connect the floating gate 102 and the control gate 104 is to form the floating gate 102 and the control gate 104 in a testing area 106 on the P-type substrate 101, or to form the floating gate 102 and the control gate 104 on a test key 112 in a memory chip 108 on the P-type substrate 101. There is not any dielectric layer formed between the floating gate 102 and the control gate 104, and an oxide layer (here, ~~an~~

tunnel oxide layer) 114 is simultaneously formed between the floating gate 102 and the P-type substrate 101 when normal products are formed. The floating gate 102 and the control gate 104 are therefore successfully electrically connected without affecting the normal product area.

Please replace paragraph [0034] with the following amended paragraph:

Then wafer acceptance testing equipment in a production line is utilized to apply a first gate voltage, which is one of the swing time-dependent negative DC ramping voltage, to the floating gate 102 and the control gate 104 (step 172). A first gate leakage current flowing through the floating gate 102 and the control gate 104 of the flash ROM cell 100 is thereafter measured (step 174). The gate leakage current is given by the Fowler-Nordeheim tunneling mechanism equation:

Please replace paragraph [0045] with the following amended paragraph:

By substituting the E_{ox} in equation (1) into the Fowler-Nordeheim tunneling mechanism equation, a new equation is obtained. The new equation is called as equation (2) so as to facilitate the discription:

Please replace the abstract with the following:

The present invention utilizes ~~a~~ wafer acceptance testing equipment to fast monitor the quality of a tunnel oxide layer. First, a control gate and a floating gate in a memory cell are electrically connected. Then a plurality of swing time-dependent

DC ramping voltages are applied and each corresponding gate leakage current is measured to calculate each corresponding β value. Finally a ratio of each β value is calculated and a β-gate voltage curve is plotted to actually simulate the device failure.